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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,089	02/28/2002	James M. Kubiak	0942.2840002	8471

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STERNE, KESSLER, GOLDSTEIN & FOX PLLC  
1100 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER

GORDON, BRIAN R

ART UNIT PAPER NUMBER

1743

DATE MAILED: 07/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/084,089

Applicant(s)

KUBIAK ET AL.

Examiner

Brian R. Gordon

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 4-12-05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 66-81 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 66-68 and 71 is/are rejected.
- 7) ☒ Claim(s) 69-70 and 72-81 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2-28-02 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of Group I in the reply filed on April 12, 2005 is acknowledged. As state by applicant, a preliminary amendment filed February 28, 2002, canceled all claims except claims 66-81. Therefore, the restriction requirement is improper and has been withdrawn.

### ***Specification***

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 66-68, and 71 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoover et al. US 4,979,639.

Hoover et al. discloses a multiflavor beverage dispenser comprises a microprocessor system for controlling the ratio of diluent to concentrate of a post-mix beverage. The system includes a compact flow rate control module for selectively controlling the flow rates of liquids in a plurality of flow passages leading to nozzle

Art Unit: 1743

assemblies of the dispenser. Each flow rate control module includes a single stepper motor connected to a rotary spool valve for selectively controlling the flow rate of the liquids. The microprocessor system utilizes variable reference signals which are ramped to approximately correspond to the actual flow rate of the liquid towards a target in order to reduce overshoot values of the flow rates. A scaling function is provided by the microprocessor system to adjust target flow rates between pours in order to achieve consistent controlled ratios of the beverage being dispensed (abstract).

The ratio control system of the present invention is implemented by a microprocessor and associated software in combination with the multiflavor dispenser apparatus and the above-described flow rate control assembly. The microprocessor and software (readable program mean code means), in combination with the flow rate control assembly, together form a system for dispensing a mixture of concentrate and diluent of a controlled ratio at or near a selected flow rate from a mixing means comprising: concentrate supply conduit means (incompatible concentrated solutions) in fluid communication with said mixing means; diluent supply (diluent stream) conduit means in fluid communication with said mixing means; concentrate sensor means for determining the actual flow rate of concentrate in said concentrate supply conduit means and generating a concentrate flow rate signal; diluent sensor means for determining the actual flow rate of diluent in said diluent supply conduit means, and generating a diluent flow rate signal; target signal generator means for generating target flow rate signals for the concentrate and the diluent in the respective conduit means, the concentrate and diluent flow rate signals being determined from the selected flow rate of

Art Unit: 1743

the mixture at given ratios of diluent to concentrate of the mixture; reference signal generator means for generating variable reference flow rate signals associated with each of the concentrate flow rate and diluent flow rate; comparator means responsive to said concentrate flow rate sensor means and said diluent flow rate sensor means (flow sensor) for comparing each of the concentrate and diluent flow rate signals in the respective conduit means with the associated variable reference flow rate signals, and generating concentrate and diluent error signals (monitor a parameter for acceptability, claim 71) indicative of the differences between concentrate and diluent flow rate signals and the respective associated variable reference flow rate signals (flow rate monitors); concentrate flow rate control means (flow rate adjustment means) responsive to said concentrate error signal for changing the actual concentrate flow rate in the concentrate supply conduit means toward a value equal to the variable reference flow rate reference signal associated with the concentrate flow rate until the concentrate error signal equals approximately zero; diluent flow rate control means (flow rate adjustment) responsive to said diluent error signal for changing the actual diluent flow rate in the diluent supply conduit means toward a value equal to the variable reference flow rate associated with the diluent flow rate until the diluent error signal equals approximately zero; **adjusting means** for gradually varying each of the variable reference flow rate signals associated with the concentrate flow rate and diluent flow rate toward the respective target flow rate signals thereof; and scaling means for scaling up or down the target flow rates of the concentrate and diluent to values consistent with the controlled ratio, and causing the reference adjusting means to adjust the variable reference signals upward or downward

Art Unit: 1743

if either the average value of the concentrate error signals or the average value of the diluent error signals during a specified time period exceed defined limits, whereby a controlled ratio of concentrate and diluent will be dispensed even if the selected flow rate of the mixture is not consistently achieved (column 2, line 21 – column 3, line 18).

The plurality of concentrated solutions begin to mix in the conduit of the nozzle assembly (static mixing chamber).

***Allowable Subject Matter***

4. Claims 69-70, 72-81 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach nor fairly suggest a computer readable program code means for enabling the computer system to monitor a level of said diluted mixture in a medium surge tank; and computer readable program code means for enabling the computer system to adjust the flow of said diluted mixture into said medium surge tank, computer readable program code means for enabling the computer system to control a diverter valve that directs said diluted mixture based on whether said diluted mixture is acceptable, and computer readable program code means for enabling the computer system to monitor a pH level of said diluted mixture using at least one pH sensor located downstream of said static mixing chamber.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Triassi; Richard Paul et al.; Lee; Joseph Kinman et al.; Okun; Ilya et al.; Nelson; Mark et al.; Powers, Elaine; and Nelson, Mark et al. disclose fluid mixing and dilution devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Gordon whose telephone number is 571-272-1258. The examiner can normally be reached on M-F, with 2nd and 4th F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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